

MSA FACILITIES SAFETY AND HEALTH INSPECTION PROGRAM

FIRE PROTECTION INSPECTION



Approved for Public Release;
Further Dissemination Unlimited

FIRE PROTECTION INSPECTION

At the completion of this unit you shall be able to:

1. Utilize section A of the Safety and Health Hazard Inspection Program Checklist to identify compliant and non-compliant safety behaviors.
2. Identify areas of concern requiring immediate action to mitigate or prevent a possible injury.

Please use "Slide Show" to properly view this presentation!

FIRE PROTECTION INSPECTION

- ▣ This section is concerned with verifying that the fire safety systems, evacuation routes, signage, and fire prevention systems are in place and operable in our facilities.



FIRE PROTECTION INSPECTION

- Section A of the checklist contains up to 12 items (not including “other”. Let’s take a closer look at these.

MSA GENERAL INDUSTRY-BASED SAFETY AND HEALTH HAZARD INSPECTION CHECKLIST			
Facility:		Facility Representative:	
Date:		Team Member:	
Total Items Reviewed:		Team Member:	
Total Non-Compliant Items:		Team Member:	
No.	Inspection Observations	Compliant? Y•N•N/A	See Comments (indicate with X)
A	FIRE PROTECTION INSPECTION (All issues must be observed as applicable see note 2)		
1	Emergency Lights - Each unit must be operable when tested.		
2	Portable Fire Extinguishers (PFE) - Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the "green" zone (where applicable).		
3	PFE is not obstructed, is visible, and the seal is not broken.		
4	Sprinkler Clearance - Clearance between the sprinkler deflector and the top of any storage is 18 inches or greater.		
5	Fire Riser Pressure Gauge Inspection - Inspect gauges to verify pressure to the building and pressure held in the fire system. Typically both gauges will have similar pressure readings.		
6	Fire Risers - Access to fire system sprinkler risers and other system components must be unobstructed.		
7	Fire Riser Valve Inspection - Check all seals, position and supervision for broken seals or possible tampering.		
8	Post Indicating Valve Inspection - This valve will be located outside of the facility. It must be verified that the window on the side of the valve reads "OPEN".		
9	Exit Signs - Exit signs with an internal lighting source must be checked to ensure all lamps are functional. - Exit signs that use Tritium must be observed that they have not been damaged, all applicable labels are present, the sign has not expired, and it is not covered with another sign.		
10	Fire Doors - Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.		
11	Ceiling Tiles - Where automatic sprinklers are installed drop ceiling tiles are in place. Missing tiles slow response of fire suppression sprinklers.		
12	Manual alarm stations are easily identified and readily accessible.		
13	Other.		
B	GENERAL SAFE BEHAVIORS		
1	Employees are taking the necessary safety precautions for the work being performed.		
2	Work is being performed such that collocated employees in the area are not exposed to occupational hazards or unsafe conditions.		

1

A-6004-299 (REV 2)

FIRE PROTECTION INSPECTION

1. Emergency Lights -
2. Portable Fire Extinguishers (PFE) -
3. PFE is not obstructed, is visible, and the seal is not broken.
4. Sprinkler Clearance -
5. Fire Riser Pressure Gauge Inspection
6. Fire Risers -
7. Fire Riser Valve Inspection -
8. Post Indicating Valve Inspection -
9. Exit Signs -
10. Fire Doors -
11. Ceiling Tiles -
12. Manual alarm stations.

FIRE PROTECTION INSPECTION

1. Emergency Lights – Each unit must be operable when tested.



FIRE PROTECTION INSPECTION

- ▣ A compliant grade on this item would indicate that not only are the lights operational but are in good working order.
- ▣ A non-compliant grade would indicate that the lights weren't in an operable order.
- ▣ Note that the Code requires that good order includes that emergency lights stay illuminated for 1 ½ hours.



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.

- This item is to ensure that the fire extinguisher is located properly and is accessible.
- First, location –
 - As a rule you need to have a fire extinguisher located within 75 feet of travel (office spaces) or 50 feet of travel (work shops/ garages).
 - The location of the fire extinguisher must be identified either by the physical location of the extinguishers (visible) or by a visible sign (if behind a counter or cabinet).



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.

- Second, mounting –
 - To prevent fire extinguishers from being moved or damaged, they should be mounted on brackets or in wall cabinets with the carrying handle placed 3-1/2 to 5 feet above the floor.
 - Larger fire extinguishers need to be mounted at lower heights with the carrying handle about 3 feet from the floor.



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.

- A rating of compliant on this item would indicate that the fire extinguisher met these guidelines.
- A rating of a non compliant on this item would indicate that the fire extinguisher didn't met these guidelines.



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.

- For Example:
 - The extinguisher is blocked or hidden.
 - The extinguisher is missing
 - The extinguisher is not accessible



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.

- For Example:
 - The extinguisher is missing



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.
- For Example:
 - The extinguisher is not accessible



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.

- The purpose behind this item is to ensure that the fire extinguisher is undergoing it's monthly inspection.



FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.
- Each extinguisher is inspected monthly, the following is looked for:
 1. Is each extinguisher in its designated place, clearly visible, and not blocked by equipment, coats or other objects that could interfere with access during an emergency?
 2. Is the nameplate with operating instructions legible and facing outward?
 3. Is the pressure gauge showing that the extinguisher is fully charged (the needle should be in the green zone)?
 4. Is the pin and tamper seal intact?
 5. Is the extinguisher in good condition and showing no signs of physical damage, corrosion, or leakage?
 6. Have all dry powder extinguishers been gently rocked top to bottom to make sure the powder is not packing?

FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.
- Typically, a satisfactory monthly (and annual) inspection will be documented on a tag affixed to the extinguisher.
 - Sometimes this tracking is done electronically using a bar code reader system.

 N.Y.C.
LIC. 152

**ALERT
FIRE CONTROL**

THIS EXTINGUISHER WAS
SERVICED AND IS GOOD FOR

☐ SIX MONTHS ☐ ONE YEAR ☐

If Used SERVICED BY CF80362643

(914) 961-7184

FOR PROMPT EFFICIENT SERVICE

401 NEW ROCHELLE RD.
BRONXVILLE, N.Y. 10708

This extinguisher was left in
servicable condition on this date
tag is void if date is altered

JAN.	FEB.	MAR.	APR.	MAY	JUNE
JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
2003	2004	2005	2006	2007	

 ALERT
FIRE
CONTROL

**OSHA MONTHLY
INSPECTION RECORD**

SERIAL NO. _____

	2003	2004	2005	2006	2007
JAN.					
FEB.					
MAR.					
APR.					
MAY					
JUNE					
JULY					
AUG.					
SEPT.					
OCT.					
NOV.					
DEC.					

**IF DAMAGED OR USED,
IMMEDIATELY CALL**

914-961-7184

FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.
- Because of this you may need to double check to see how that facility is tracking it's inspections.
 - A rating of compliant on this item would indicate that all evidence indicates that the fire extinguisher has received it's monthly inspections.



N.Y.C.
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914-961-7184

FIRE PROTECTION INSPECTION

2. Portable Fire Extinguishers (PFE) – Each unit is properly mounted, an inspection tag is in place and reflects through previous month, the pressure gauge is in the “green” zone.



- A rating of non-compliant on this item would indicate that evidence indicates that the fire extinguisher has not received it's monthly inspections.

FIRE PROTECTION INSPECTION

3. PFE is not obstructed, is visible, and the seal is not broken.

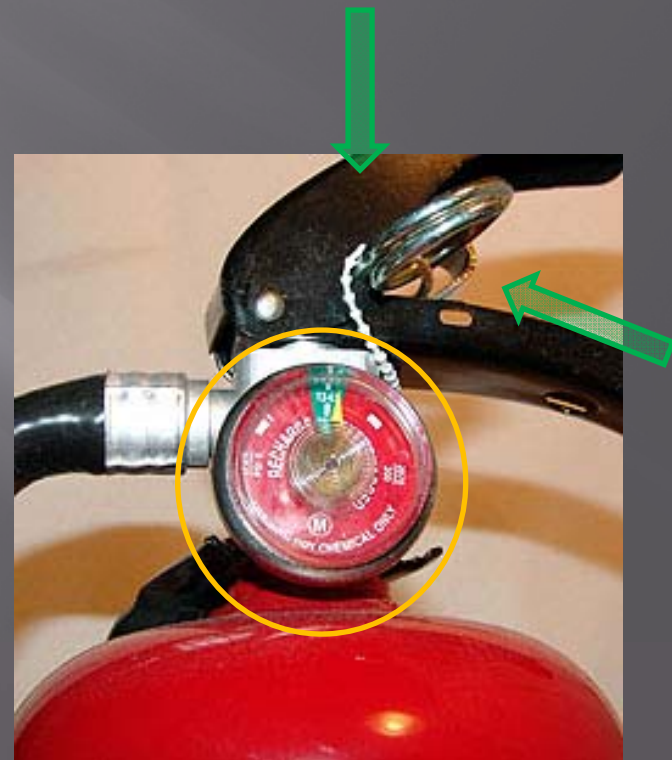
- ▣ The purpose of this item is to ensure that the fire extinguishers in place are charged and operational. Normally this is checked on a monthly basis as a part of the normal inspection (more on this later)



FIRE PROTECTION INSPECTION

3. PFE is not obstructed, is visible, and the seal is not broken.

- A rating of compliant on this item indicates that;
 - the fire extinguisher is fully charged,
 - the seal is in place,
 - the pin is in place,
 - and it is operational.



FIRE PROTECTION INSPECTION

3. PFE is not obstructed, is visible, and the seal is not broken.

▣ A rating non compliant on this item indicates that;

- the extinguisher has lost it's charge,
- there is either no seal or the seal is inappropriate (try and break this cable tie..)
- or the pin is missing or not in place.



FIRE PROTECTION INSPECTION

4. Sprinkler Clearance – Clearance between the sprinkler deflector and top of the any storage is 18 inches or greater.
- This section deals with the safety and maintenance of installed fire protection systems such as sprinklers, pull stations, etc.

FIRE PROTECTION INSPECTION

4. Sprinkler Clearance – Clearance between the sprinkler deflector and top of the any storage is 18 inches or greater.
 - The purpose for this item is to ensure that the sprinkler head is clear of any obstructions. Generally objects stored within 18 inches of the head can negatively impact the ability to extinguish a fire.
 - A rating of compliant on this item would indicate that the head had sufficient clearance.



FIRE PROTECTION INSPECTION

4. Sprinkler Clearance – Clearance between the sprinkler deflector and top of the any storage is 18 inches or greater.
- A rating of non-compliant on this item would indicate that the head did not have had sufficient clearance.



FIRE PROTECTION INSPECTION

4. Sprinkler Clearance – Clearance between the sprinkler deflector and top of the any storage is 18 inches or greater.
- A rating of non-compliant on this item would indicate that the head did not have had sufficient clearance.
 - Or was somehow blocked/impaired in another manner.



FIRE PROTECTION INSPECTION

5. Fire Riser Pressure Gauge Inspection – Inspect gauges to verify pressure to the building and pressure held in the fire system. Typically both gauges will have similar pressure readings.
 - The purpose behind this item is to determine if the pressure in the sprinkler system for the building has any obvious obstructions in the pipe that could impede the operation of the system.



FIRE PROTECTION INSPECTION

5. Fire Riser Pressure Gauge Inspection – Inspect gauges to verify pressure to the building and pressure held in the fire system. Typically both gauges will have similar pressure readings.

- Generally where there are two gauges you want to verify that they both readily read the same pressure.



FIRE PROTECTION INSPECTION

5. Fire Riser Pressure Gauge Inspection – Inspect gauges to verify pressure to the building and pressure held in the fire system. Typically both gauges will have similar pressure readings.
 - ▣ If they both are relatively close then you may mark compliant on the checklist.



FIRE PROTECTION INSPECTION

5. Fire Riser Pressure Gauge Inspection – Inspect gauges to verify pressure to the building and pressure held in the fire system. Typically both gauges will have similar pressure readings.

- ❑ Conversely if they do not you need to note it as non-compliant and ensure the Building administrator is notified to contact fire maintenance.



FIRE PROTECTION INSPECTION

5. Fire Riser Pressure Gauge Inspection – Inspect gauges to verify pressure to the building and pressure held in the fire system. Typically both gauges will have similar pressure readings.
 - ▣ Please note that some sprinkler systems have only one gauge. In this situation you evaluate that pressure is present in the system. Still other systems have no gauges, in that case you would mark N/A for this item on the checklist.



FIRE PROTECTION INSPECTION

6. Fire Risers - Access to fire system sprinkler risers and other system components must be unobstructed.
- This item is to ensure that fire department personnel have access to the controls for the fire sprinkler system.
 - If the access to the pipes is clear then the condition of this item is compliant.



FIRE PROTECTION INSPECTION

6. Fire Risers - Access to fire system sprinkler risers and other system components must be unobstructed.
- ▣ Conversely, if the access to the sprinkler controls are blocked by cleaning materials, storage, etc. The item is considered non-compliant and will need to be corrected as soon as possible.



FIRE PROTECTION INSPECTION

7. Fire Riser Valve Inspection – Check all seals, position and supervision for broken seals or possible tampering.
- Many of the valves used in the fire suppression systems of out buildings are locked and/or sealed in the position that they must be in to ensure operation of the equipment.



FIRE PROTECTION INSPECTION

7. Fire Riser Valve Inspection – Check all seals, position and supervision for broken seals or possible tampering.

- ▣ At Hanford we use a number of seals uniquely marked as HFD (Hanford Fire Department) along with chains and locks to provide this function.
- ▣ When the seals are in place this would be considered compliant.



FIRE PROTECTION INSPECTION

7. Fire Riser Valve Inspection – Check all seals, position and supervision for broken seals or possible tampering.

- ▣ If the seals are broken you have a non-compliant condition and will need to contact the Building Administrator for Fire Systems Maintenance to correct the problem.



FIRE PROTECTION INSPECTION

8. Post Indicating Valve Inspection – This valve will be located outside of the facility. It must be verified that the window on the side of the valve reads “OPEN”.

- ▣ This item deals with verifying the position of the isolation valve for the fire suppression system of the building.
- ▣ The stand pipe can be found outside of the building.



FIRE PROTECTION INSPECTION

8. Post Indicating Valve Inspection – This valve will be located outside of the facility. It must be verified that the window on the side of the valve reads “OPEN”.

- ▣ The position of the valve is verified by looking in the window. If it reads “OPEN” it is compliant. If it reads “SHUT” it is not compliant and will need to be reported and corrected.



FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

- ▣ On the checklist there are two types of exit signs with internal lighting we are concerned with.



FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

- ▣ The first type of lighted exit sign are those that require some form of electrical supply such as an internal battery or protected electrical circuit.
- ▣ These may be lit with LED's, incandescent bulbs or any number of different types of technology that require a power supply.



FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

- ▣ A compliant light is one that if the power goes off it will remain on.
- ▣ If it does not stay on it is considered non-compliant and needs to be noted on the checklist as such.



FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

- ▣ The second type of exit sign is one that uses Tritium tubes as a light source.
- ▣ These do not require any additional power supply and are typically operable for years.



FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

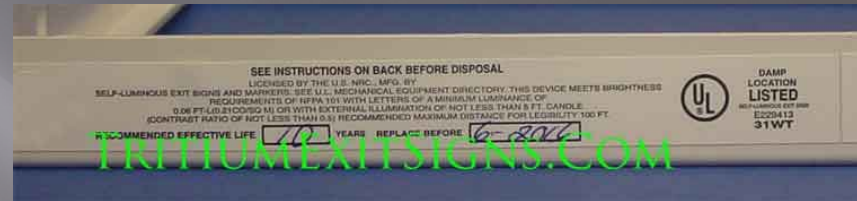
- ▣ These type of signs use the decay of radioactive Tritium in small tubes to light up phosphorescent material in the tube (similar to a fluorescent light).
- ▣ The light that is given off is very dim but is continuous and is bright enough after a loss of lighting to identify the exists.



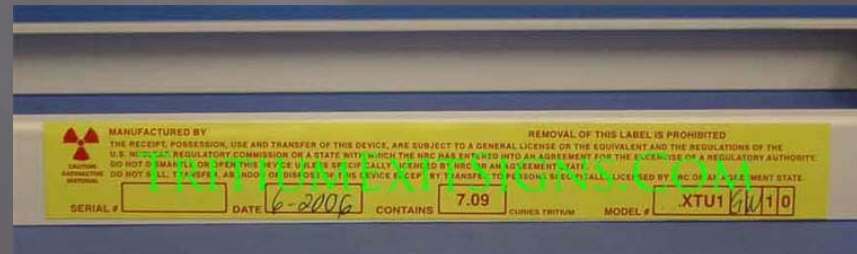
FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

- ▣ There are two things you need to look for with these signs.
 1. Is the light intact – broken lights must be immediately dealt with by contacting the Building Administrator.
 2. Is the light within it's service life? – this indicated by the labeling on the light.



Top of Sign

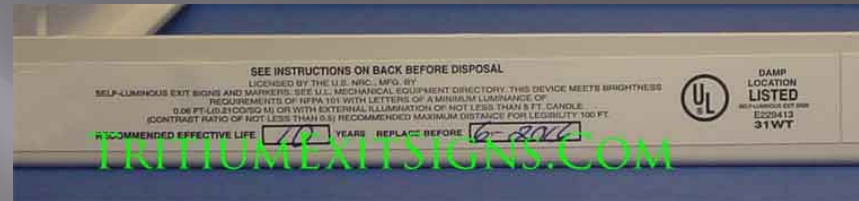


Bottom of Sign

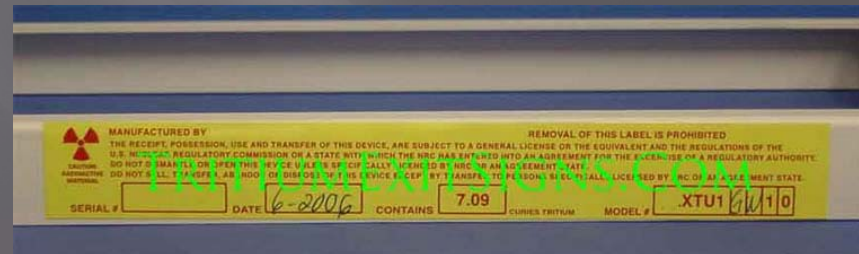
FIRE PROTECTION INSPECTION

9. Exit Signs – Exit signs operable.

- ▣ If the light is not broken, covered up, and within the services life it is considered compliant.
- ▣ If it is broken, covered up, or has exceeded it's service life as indicated by the label it is considered non-compliant and must be noted on the checklist.



Top of Sign



Bottom of Sign

FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- A **fire door** is a door with a fire –resistance rating (sometimes referred to as a *fire protection rating* for closures) used as part of a passive fire protection system to reduce the spread of fire or smoke between areas and corridors and to enable safe egress from a building.



FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ These doors may either be manually closing or have a self closing mechanism that is actuated when a fire condition (alarm or actual fire) exists.
- ▣ This item is primarily concerned with those doors that are designed to close automatically in a fire condition.



FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ The automatic closing devices can vary in design.
 - An older type uses a fusible link that in the presence of heat will melt and cause the door to close.



FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ Other types of closures are typically designed to receive a signal from an alarm system to allow the door close.



Electro-magnet releases door upon signal from alarm system

FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ Other types of closures are typically designed to receive a signal from an alarm system to allow the door close.



FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ Generally you are looking for two things.
 1. Do the doors when they close latch?



FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ Generally you are looking for two things.
 1. Do the doors when they close latch?
 2. Are the doors with automatic closures not blocked open?



FIRE PROTECTION INSPECTION

10. Fire Doors – Identify that fire doors operate freely and latch securely upon closure. Fire doors must not be propped open.

- ▣ If the doors latch and hold and if the automatic doors are not blocked then this item is compliant.
- ▣ Otherwise it is not compliant, it must be noted and corrective actions taken.



FIRE PROTECTION INSPECTION

11. Ceiling Tiles – Where automatic sprinklers are installed drop ceiling tiles are in place.

- ▣ Most of our buildings have removable ceiling sections (called tiles). Generally these sections have resistance to the spread of fire and smoke. The sprinkler systems typically (but not always) are set up to control fires below these tiles.



FIRE PROTECTION INSPECTION

11. Ceiling Tiles – Where automatic sprinklers are installed drop ceiling tiles are in place.

- ▣ If all of the suspended ceiling tiles are in place this item would be considered compliant.



FIRE PROTECTION INSPECTION

11. Ceiling Tiles – Where automatic sprinklers are installed drop ceiling tiles are in place.

- ❑ On the other hand if the tiles are missing the spray pattern of the sprinklers are not able to adequately protect the space, this can also result in an increased spread of smoke and potentially fire.
- ❑ In this situation you would rate the item as non-compliant and note it on the checklist and further corrective actions.



FIRE PROTECTION INSPECTION

12. Manual alarm stations are easily identified and readily accessible.

- ❑ The purpose behind this item is to ensure that manual fire alarm stations (pull boxes) are identified and accessible.
- ❑ A rating of compliant on this item would indicate that the pull box is identified via signage or position/markings, and is accessible to building occupants.



FIRE PROTECTION INSPECTION

12. Manual alarm stations are easily identified and readily accessible.

- A rating of non-compliant would indicate that the pull station was not accessible or not readily identified.
- With many of the moves that take place be aware of office partitions or cabinets that may block fire protection and alarm systems.



FIRE PROTECTION INSPECTION

- If at any time you have any questions about how to fill out the form or about the items on the form please contact your project safety group.

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1	Employees are taking the necessary safety precautions for the work being performed.		
2	Work is being performed such that collocated employees in the area are not exposed to occupational hazards or unsafe conditions.		

FIRE PROTECTION INSPECTION

Thank you for your time
and desire to help us have
a safer workplace